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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Martin Hans

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EXAMINER

LAM, DUNG LE

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/705,523	<b>Applicant(s)</b> HANS ET AL.	
	<b>Examiner</b> DUNG LAM	<b>Art Unit</b> 2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 16-18, 20 and 24-26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 16-18, 20, 24-26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 June 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____.  |

**DETAILED ACTION**

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claim **16** is rejected under 35 U.S.C. 103(a) as being unpatentable over ***Chuang et al*** (US Patent Number **5,212,831**) in view of **Hamabe** (US Patent Number 6,574,456).

Regarding **claim 16**, **Chuang** teaches a method of assigning transmission channels in a telecommunications network having a plurality of base stations (base units/ports 30, 40, 50, 60, Col. 10 ln 22-52) and a plurality of mobile stations (portables, 34, 36, 48, 72), the transmission channels being provided for transmitting signals between the plurality of base stations and the plurality of mobile stations, the method comprising (see Abstract):

- in an uncoordinated operation of the base stations for establishing a connection between one of the base stations and one of the mobile stations (C12 L59 -C13 L14, Abstract), including assigning an uplink and downlink transmission channel for the transmission of signals between the one of the base stations and the one of the mobile stations(C12 L4-8);

- whereby said one of the base stations ... perform a channel measurement on all possible transmission channels (C12 L20-34) to determine whether such transmission channels are below a pre-selected value for connection quality and said uplink and downlink transmission channels are assigned based on said measurement frequency channel with the lowest received power is assigned, (Col. 11 ln 66- col. 12 Ln 40, especially C12 Ln29-34 & Ln37-38)

- and thereafter said one of the base stations and said one of the mobile stations repeatedly re-measure all of the possible transmission channels not previously used to determine whether such transmission channels are below a pre-selected value for connection quality (C11 L66 –C12 L2).

However, Chuang does not teach the mobile station performing a channel measurement. In an analogous art, **Hamabe** performs a channel measurement on all possible transmission channels (C8 L52-67) to determine whether such transmission channels are below a pre-selected value for connection quality and thereafter said one of the base stations and said one of the mobile stations repeatedly re-measure all of the possible transmission channels not previously used to determine whether such transmission channels are below a pre-selected value for connection quality (C9 L1 – L40). Therefore, it would have been obvious for one of ordinary skill in the art at the time of the invention to combine Chuang's teaching of the base station measuring the channels with **Hamabe's** teaching of the mobile station measuring the channels in the channel allocation process so that the measurements from both the base station and

mobile stations' can be use and compared in the channel assignment step, thereby increasing the chance of selecting a more suitable channel.

3. Claims **17-18 and 26** are rejected under 35 U.S.C. 103(a) as being unpatentable over ***Chuang, Hamabe in view of Chuang2000*** (US Patent **No. 6,052,594**).

4. Regarding **claim 17, Chuang and Hamabe teach** a method according to claim 16 except the use of codes to spread and despread when performing channel measurement. In an analogous art, **Chuang2000** teaches the use of codes to spread at least one transmission resource into a plurality of the transmission channels, wherein the channel measurement includes a code measurement, in which a received signal for each transmission resource is despread using predefined ones of the codes to measure the transmission power in each of the transmission channels (col. 5 ln 28-44).

Therefore, it would have been obvious for one of ordinary skill in the art at the time of the invention to combine Chuang's teaching of channel assignment with Chuang2000's teaching of code spreading to increase the system's capacity and reduce interference and eavesdropping (suggested by Chuang2000, col.2 ln 25-40).

5. With further regard to **claim 18**, Chuang in view of Chuang2000 teaches that the codes are provided for spreading at least one of a time slot and a frequency band (col. 5 ln 28-44).

6. Regarding **claim 26, Chuang and Hamabe teach** a method according to claims 16 and 27 except the following steps of scrambling a new code with a transmission channel if a transmission capacity of the transmission channels established for assignment is not sufficient and assigned a new scrambled channel with the least

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transmission power. In an analogous art, **Chuang2000** teaches the concept of using CDMA technology of scrambling channels with codes to increase capacity (col.2 In 25-40), and the steps of (A) scrambling at least one of the transmission channels with a new scrambling code (Col. 6 In. 2-12, Col. 5 In. 28-44). Furthermore, **Chuang** teaches the step of (B) assigning the at least one transmission channel for transmitting signals between one of the base stations and one of the mobile stations as a function of a channel measurement, wherein transmission power of all channels are measured and the one with the minimum power is assigned (**Chuang** Col. 5 In. 28-44). Therefore, it would have been obvious for one of ordinary skill in the art at the time of the invention to apply Chuang2000's teaching of code scrambling to Chuang's teaching of channel measurement and assignment to increase the system's capacity and decrease the interference level.

7. Claim **20** are rejected under 35 U.S.C. 103(a) as being unpatentable over

**Chuang et al and Hamabe** in view of **H'mimy** (US Patent No. 6,442,152).

8. Regarding **claim 20, Chuang and Hamabe teach** the method according to claim

16. However, Chuang does not teach that a new channel is selected if the connection quality falls below a level. In an analogous art, **H'mimy** teaches that the channel measurement is performed during an existing connection between one of the base stations and one of the mobile stations, and wherein a connection quality of the existing connection is measured in parallel, and, if the connection quality falls below a preselected value, a channel change is performed and at least one new transmission channel is assigned as a function of a channel measurement of the existing connection

(Col. 3, ln 23-34, col. 6 ln 6-10). Therefore it would have been obvious for one of ordinary skill in the art at the time of the invention to combine Chuang's teaching of channel assignment and H'mimmy's teaching of reassigning a channel when the quality falls below a pre-selected value because this channel reassignment would prevent the system's quality of service from degrading to an unacceptable level.

9. Claims **24 and 25** are rejected under 35 U.S.C. 103(a) as being unpatentable over ***Chuang and Hamabe*** in view of ***Toshiyuki et al.*** (US Patent No. 5,093,924).

10. Regarding ***claim 24, Chuang and Hamabe teach*** the method according to claim 16. However, Chuang does not teach that at least one of the base stations transmits specific information via a broadcast channel to all of the mobile stations within a reception range of the at least one of the base stations, and the broadcast channel is changed if an interference detected on the broadcast channel exceeds a pre-selected value. In an analogous art, ***Toshiyuki*** teaches the use of a broadcast channel for paging and sending control information purpose (col. 7 ln 12- col. 8 ln 36) and that the interference level of a channel does not satisfies a predetermined quality, a different channel is selected. Therefore, it would have been obvious for one of ordinary skill in the art at the time of the invention to combine Chuang's teaching of channel assignment and Toshiyuki's well known concept of using broadcast channel to send control information and selecting a channel that yields the satisfactory interference value to ensure that the system's Qos is at its maximum level.

11. With further regard to ***claim 25, Chuang and Hamabe teach*** a method according to claim 24, wherein Toshiyuki teaches at least one of the transmission

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channels is reserved for use as the broadcast channel (col. 7 ln 12- col. 8 ln 36).

Therefore, it would have been obvious for one of ordinary skill in the art at the time of the invention to combine Chuang's teaching of channel assignment and Toshiyuki's known in art concept of using broadcast channel to send control information to facilitate the communications between the mobiles and the network.

### ***Response to Arguments***

Applicant's arguments with respect to claims 16-18, 20, 24-26 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DUNG LAM whose telephone number is (571) 272-6497. The examiner can normally be reached on M - F 9 - 5:30 pm, Every Other Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Harper can be reached on (571) 272-7605. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/VINCENT P. HARPER/

Supervisory Patent Examiner, Art Unit 2617